

# **CFIA RISK COMMUNICATION FRAMEWORK**

## **Introduction**

The purpose of this document is to provide a framework for the application of risk communication principles across all commodities and disciplines within the Canadian Food Inspection Agency (CFIA).

Risk communication is a part of the process of risk analysis, which includes risk assessment, risk management, and risk communication. Throughout this document, use of these terms has been kept consistent with definitions consistent with those accepted by international bodies responsible for risk analysis policy in Animal Health, Plant Health and Food/Fish Safety. These definitions are found in Annex I of this document.

Risk analysis provides a structure within which to evaluate data, to place risks in context, and to develop rational risk management policies and programs. Within the last decade, there has been considerable interest in applying risk analysis methods to the management of animal, plant, fish and food hazards. The main objective of this activity is to provide participants with the most appropriate ways to apply risk analysis principles to regulatory and non-regulatory issues.

Regulatory agencies are entering an era in which better and more extensive communications with stakeholders are required. With increasing interest in risk analysis as a tool for the management of risks, has come recognition that effective communication is essential to their successful management. Without good risk communication, stakeholder, particularly public stakeholder, opinion may and sometimes has forced the allocation of risk management resources in ways which are ineffective in reducing real foodborne risks. Poor communication also hampers or prevents the implementation of sound risk management programs.

## Scope of the Framework

This framework outlines ten principles of effective risk communication which can serve as a foundation for the CFIA risk communication policy. Since consultation forms an important part of risk communication, principles of effective consultation are also outlined. Finally, a chart showing how consultation activities may be integrated into the risk analysis framework has been included.

The mechanics of communicating about risks (that is, the ways in which information may be effectively gathered, prepared, and distributed), and the development of specific risk communication plans - are outside the scope of this paper.

## Defining risk communication

**Risk communication** has been defined as, “an interactive process of exchange of information and opinion on risk among risk assessors, risk managers, and other interested parties”.

There are many forms which communications with stakeholders can take. The simplest is the dissemination of (usually technical) information to target groups. This is generally one-way communication, with responses limited to providing clarification or amplification of the information. As such, although it is often an essential part of risk management activities, it is not true risk communication.

Similarly, persuasion, defined as convincing or inducing someone to believe and/or act is not true risk communication because the element of interactive exchange is lacking in persuasion.

## Objectives and Benefits of Effective Risk Communication

The objectives of CFIA's Risk Communication Framework are as follows:

1. To establish and maintain channels for obtaining information on stakeholder knowledge, attitudes, and perceptions around risk issues, and for incorporating this information into risk analysis policies and programs. Because many risk issues involve social value concerns and thus go beyond matters of scientific or other expertise, it is important that the process of formulating risk regulation policy includes provision for accommodating public input.
2. To publicize among stakeholders the risk analysis policies, including risk assessment methods and standards of risk, employed by the CFIA. Industry stakeholders in regulatory decisions have a right to know and understand what the potential regulatory burden would be before investing resources in regulated activities. Similarly, the public has a right to know and understand the standards and policies used by the CFIA to safeguard public health.

3. To publicize and explain among stakeholders the risk management policies and programs of the CFIA. Stakeholders have a right to know the rationale for such programs and policies, and how they will impact on stakeholder groups.

Good risk communication has a number of benefits:

1. By increasing stakeholder input, it enlarges the information base on which risk management decisions are made. This enlargement is likely to improve the quality of those decisions.

2. It promotes greater stakeholder understanding of risk management issues and problems, and of the processes by which risk management decisions are made and implemented. This increased understanding is likely to translate into increased support and co-operation with risk management measures.

3. Effective, reciprocal communication builds stakeholder networks which will greatly facilitate handling of future risk management problems, particularly in a crisis. This is true not only among various stakeholder groups, but within each group as well.

4. In combination with a good risk management plan, it provides risk managers with greater confidence in and control of the risk management situation, as well as a broader perspective. Not only will adverse publicity and stakeholder opposition be reduced, but they will more easily be handled if there is a coherent risk communications policy and program in place.

Poor communication generally creates difficulties which are the converse of the benefits outlined above.

## **PRINCIPLES OF GOOD RISK COMMUNICATION**

1. Good risk communication requires good faith on the part of all participants. It is possible only when there is a genuine belief in the value of the process of interactive communication with stakeholders. Good risk communication does not necessarily imply complete disclosure, but it does require that what is communicated to other stakeholders is reliable within the limits of the communicator's knowledge.

2. Good risk communication techniques cannot make up for poor message content. The messages communicated must be sound and significant. The most carefully prepared and skilfully implemented risk communication plan will be of limited use if the other components of the risk analysis program are inferior.

3. Good risk communication is interactive, involving active responding to as well as imparting of information and opinion. Fair and effective risk communications are based on an implicit understanding that the input of all participants is of equivalent value.

4. Good risk communication practice is proactive and ongoing. Risk communication links with stakeholders should be established before there is an urgent need for them. This proactive approach facilitates the process of risk management by promoting goodwill and trust among stakeholders and giving them experience in dealing with issues of common concern. Regular communication channels, such as annual meetings or a system of information

letters, should be established when there is a need to consult frequently with stakeholders on an issue or a variety of issues.

5. Good communication balances spontaneity and structure. Planning and organization are essential for effective risk communications, but the

structure should not be so inflexible that it cannot respond quickly and competently to the unexpected situations that inevitably arise.

6. Internal communications are an essential part of a good risk communication program. In this context, internal communications means communications within a stakeholder group, as opposed to external communications among a number of stakeholder groups. Where appropriate, internal communications within CFIA should include communications with employee unions. Often the consequences of a risk management program impact most upon those employees or members of stakeholder groups who are not directly involved in risk management decisions. It lowers morale and, to outsiders, makes an agency look badly managed, if employees are not kept informed of activities and initiatives which will impact on them and/or on stakeholder groups with which they do business. Poor internal communications often results in outsiders receiving conflicting information on the same issue from two different employees of the same organization.

7. Effective risk communication requires a recognition of the variety of perspectives that stakeholders bring to the consideration of a risk. Each stakeholder frames the facts in a different way, and therefore each stakeholder is actually dealing with a different risk management problem.

8. The CFIA should maintain an up-to-date inventory of its communication resources and skills, including current communication links with other stakeholders, available communications materials and tools, staff communications skills and training, and available communications support services. Such an inventory will enable CFIA to maintain and improve its risk communications capacity, and to respond quickly and effectively in a crisis.

9. Good communication will not resolve all the differences among stakeholder groups. Effective communications will enable stakeholder groups to better understand each other and will improve the chances of developing risk management programs which are acceptable to all or most stakeholders, but there are fundamental differences in the perspectives and objectives of industry, consumers, and regulatory agencies, which will not be removed by a good communications program. A consensus reached on a particular issue should not be taken as evidence of a general convergence of motives and outlook.

10. Even with good risk analysis programs in place, the CFIA should anticipate some criticisms and complaints from stakeholders. It is important to keep these in perspective. While criticism should not be ignored, to make a major issue out of every negative article or comment is to exist in a state of chronic corporate anxiety. Asking the following questions - who are the complainants? how much validity and significance do their comments have? whom do they represent? how much influence are they likely to have with other stakeholders? - will help to bring the criticism into perspective.

## **RISK CONSULTATION**

Consultation is defined as seeking advice or information from, or asking guidance from. In the context of risk analysis, consultation should be distinguished from negotiation, which is discussion or bargaining in order to arrange the terms of an agreement or transaction. In many cases, consultations may lead into negotiations, but the two are separate forms of interaction.

Consultation is the means by which regulatory agencies obtain information on stakeholder knowledge, attitudes, and perceptions of risk. In order to fulfill this vital role in risk communications, consultations must be planned and implemented effectively.

The mechanics of the consultation process will vary with the situation; however, the general principles outlined below are valid for all stakeholder consultations.

### **Principles of Effective Risk Consultation**

1. The CFIA requires clear and consistent consultation policies and plans supported by its senior management. Without such policies and plans, internal misunderstandings about the nature and scope of the consultation process can easily arise. Without management support, CFIA staff will not have the authority to conduct effective consultations.
2. Consultation should be genuine, rather than token. Authentic consultation requires a willingness on the part of the CFIA to view other stakeholders as partners in managing risk. Consultations can only be undertaken in a genuine spirit if the CFIA believes that the information and opinions being sought are valuable and relevant.
3. In order to avoid misunderstandings and waste of time, it is essential that the objective of the consultations and the consultation protocol be formulated and communicated to all participants before the consultation process begins. Stakeholder input should be sought when formulating the objectives and protocol; once these have been finalized, all participants should be required to adhere to them.
4. Consultations should be initiated as early in the risk analysis process as possible. Gathering data as early as possible in the risk analysis process improves the efficiency of the process. Also, the earlier in the risk analysis process they are consulted, the more likely stakeholders are to feel ownership in the decisions that are made. If consultations are begun late in the process, stakeholders may regard them as an empty gesture, made after everything has already been decided. This perception naturally has an adverse effect on the credibility of the risk analysis process.
5. No single consultation process will meet the needs of all stakeholders and all consultation situations. Each risk management problem and each stakeholder group is unique, and effective consultation strategy must take into account the characteristics of each stakeholder and the parameters of each situation. The characteristics of target

stakeholder groups should be assessed to determine the most effective way of communicating with them.

6. Stakeholders should have access to the information upon which risk analysis activities are based, except where release of such information violates security or confidentiality. A statement explaining the principles and policies upon which the risk analysis process, including the consultative policy, are based, should be made available to all stakeholders.

7. Stakeholder consultations always increases the initial planning time for risk management programs. However, if properly done, consultation should save time and money in the long run, by improving risk management programs and avoiding stakeholder opposition and costly risk management mistakes.

To prevent the process from becoming too costly, limits should be set to the consultation process in advance. Consultation plans must take into account CFIA resource constraints as well as those of the stakeholders consulted. Setting parameters will also prevent consultations from dragging on under their own inertia, with little being accomplished or resolved.

Limits may also need to be set to the extent to which consultation influences regulatory decisions. Like other government agencies, CFIA has mandates and responsibilities which it cannot legally or morally abdicate when these obligations conflict with the wishes and demands of particular stakeholder groups.

8. The consultation process should not be viewed as a public relations opportunity, in which only positive information is presented. As was mentioned above, persuasion is not true risk communication. Most people have enough common sense to realize that there are positive and negative sides to almost all issues. Presenting only positive aspects of an issue will undermine consultations by producing stakeholder cynicism about the genuineness of the process.

9. Active rather than passive stakeholder input should be sought as much as possible. Passive input is obtained through the use of surveys and questionnaires in which a set of questions, often with the choice of response limited to a number of predetermined options, are administered to respondents. These have the advantages of being objective and easy to administer, but they do not encourage creative input from the respondents. Active input is favoured by direct contact in a setting which encourages openness.

10. Feedback on the results of the consultation should always be provided to those consulted. To provide no follow up information on the impact of their input is discourteous to those who have volunteered their time to the consultative process, and fosters the impression that the consultation was just an empty exercise. If it is impractical to provide feedback to individuals, information methods directed at the consulted group as a whole can be used instead.

## When and Whom to Consult

The CFIA cannot and should not consult on all issues. In some situations - where there is an urgent need for immediate action, where the optimal course of action is obvious, where the issue is entirely or mainly technical, or where the issue is trivial or routine - consultation before action is unnecessary and inappropriate.

Consultation should be carried out only when there is a possibility that the input from the consultations will affect the risk management decision. If there is no real intent of allowing stakeholder input to influence the risk analysis process, there is little point in undertaking consultations. Consultation should only be undertaken when there is a reasonable possibility that the results can affect the decision.

All stakeholders who have a direct concern in the risk management decision should be included in the consultation process. (This does not necessarily mean that the decision would have an **equivalent** effect on all stakeholders.) It may sometimes be difficult to decide whether or not public stakeholders have a direct concern in a risk decision. When broad social values are involved in a risk issue or when a risk management decision would directly impact a specific group of public stakeholders, public input should be sought.

The following criteria should be used when deciding whether or not to consult, the extent of consultations, and the stakeholders to be consulted:

- ! the extent to which senior managers within CFIA support the process of stakeholder consultation
- ! the experience and knowledge of agency staff relative to consultation
- ! the extent to which stakeholders are willing to engage in consultation with the agency
- ! the organizational readiness of the agency. Consultations open up the CFIA to stakeholder scrutiny. It would be prudent to ensure that CFIA's policies and management are in order before beginning the consultative process. This is not to imply that consultations should be avoided so that the CFIA can avoid any criticism from stakeholders, but that the CFIA should make an effort to get its house in order before beginning consultations.
- ! the time available to make a risk management decision
- ! the resources available, in terms of money, manpower, and skills, for consultation
- ! an estimate of the cost of consultation

## **A STAKEHOLDER CONSULTATION FRAMEWORK**

A proposed consultation mechanism is outlined in Table 1. This framework provides for stakeholder input throughout the risk analysis process. Because risk management situations vary so greatly, however, any generic framework must be tailored to fit the needs of each situation. Some of the consultation steps, particularly those linked with the initial risk analysis stages, may be omitted or curtailed if desirable.

The risk assessments, both preliminary and detailed, should include a statement, written for the layperson, explaining the process by which the risk assessment has been made, including any standards of risk used. It should be able to clearly explain the assessed level of risk, uncertainty associated with this risk estimate, and the reasons for placing it in a given risk category.



**Table 1: Stakeholder Consultation Framework**

<b>Risk Analysis Activity</b>	<b>Stakeholder Consultation Activity</b>
1. Risk (Issue) Identification	1. Discuss issue with stakeholder(s) identifying risk. Develop Risk Analysis Profile using input from stakeholders.
2. Preliminary Risk Assessment	2. Distribute to stakeholders . Request input.
3. Detailed Risk Assessment (if required)	3. Provide statement to stakeholders giving parameters of detailed risk assessment. Request information or comments as appropriate from stakeholders. Provide copy of complete risk assessment to stakeholders
4. Risk Management	
a) planning phase - prepare risk management proposal	a) request comments on proposal - provide opportunities for full input from all stakeholders. Collate comments for input into risk management decision
b) decision phase	b) distribute copies of finalized risk management plan, with rationale, to all stakeholders.
c) implementation phase	c) maintain ongoing communications with stakeholders on implementation activities. Encourage continued input on concerns arising from implementation of risk management plan.
d) evaluation phase	d) request stakeholder evaluation of risk management plan. Distribute evaluation results to stakeholders.

## **THE GENERAL PUBLIC AS A STAKEHOLDER**

### **The Increasing Role of the Public Stakeholder**

There is an increasing trend toward public participation in decisions on managing risks which are or will be borne by the public, or which the public perceives that it bears or will bear. There are a number of reasons for this tendency.

There is an increasing trend toward public participation in decisions on managing risks which are or will be borne by the public, or which the public perceives that it bears or will bear. Over the past few decades private citizens in general have become more knowledgeable, more sophisticated, and less inclined to leave risk management decisions up to government and industry managers. The resulting challenge to all stakeholders is to find ways to effectively incorporate public input into the risk management process.

Over the past few decades private citizens in general have become more knowledgeable, more sophisticated, and less inclined to leave risk management decisions up to government and industry managers. Thanks to modern communications technology and the implementation of federal and provincial access to information legislation, the capacity of citizens to obtain and distribute information and to organize themselves into special interest groups has greatly increased. At the same time confidence in traditional sources of authority and information, such as government agencies, industry, and professional groups has declined. The resulting challenge to all stakeholders is to find ways to effectively incorporate public input into the risk management process.

Significant public input into risk management decisions is a relatively new phenomenon, and for many regulators, a substantial paradigm shift is required to see the public as a decision making partner. Often there are no clear policies within agencies on how and to what extent they should involve the public in decision making activities. (In some situations there may be a statutory requirement for government agencies to consult.)

Public stakeholders often lack resources which are available to government or industry stakeholders. The majority must participate in the consultation process on their own time. They may lack the time and money to travel to meetings, or to gather, prepare, and distribute information. In some cases they may be intimidated by formal consultation processes. For these reasons, consulting agencies may need to provide special assistance to public stakeholders in order to obtain quality feedback from them. Assistance may take such forms as providing additional

background material, assisting with the costs of travelling or preparing briefs, and arranging meetings at times and locations most convenient for the target public.

### **Difficulties in Dealing with Public Stakeholders**

There are a number of factors which may cause risk communicators difficulties when they consult with the public. Some of these factors, together with some suggestions for alleviating their negative effects, are discussed in Table 3 below.

**Table 3****Dealing with the Public**

<b>Problems</b>	<b>Solutions</b>
<p>1. A number of studies have shown that most lay persons have a very different perspective on risk than do technical experts. Many risk communications efforts have foundered because they did not take this principle into account. Table 4 lists factors which have been shown to affect public perception of risk (National Research Council, 1989).</p>	<p>1. At first sight, these perceptions may seem illogical, but they become more reasonable when viewed in the context of the social values and the psychological reflexes from which they spring. For example, the increased public concern associated with specific risks to children is understandable in the light of a widespread cultural value, that children are entitled to special protection from dangers. And it is natural to feel increased concern about a risk when you do not trust whatever institution is informing you about that risk!</p> <p>When faced with what appears to be exaggerated public concern about a risk, instead of dismissing or arguing against such perceptions, the risk communicator should try to determine what underlying stakeholder values are being threatened. By addressing these underlying concerns, risk managers may gain greater support for risk management programs.</p>
<p>2. The "public" does not exist as a single, homologous entity, but is composed of an infinite variety of subgroups whose size and composure are continually changing with the parameters used to define them. The stakeholder population to be consulted may be very large, including all those who may potentially consume a specific food, for example, or relatively restricted, including only the residents of a specific retirement community.</p>	<p>2. The target group of a risk communication exercise is to a large extent defined by the risk communication objectives. Once the communications goals and the characteristics of the target stakeholder group(s) within the general public have been defined, specific communication strategies can be developed to bring about effective interaction with the target group(s).</p>
<p>3. Finding representatives who can speak and act for the stakeholder public is often a problem. Since the public (or publics) is not an organized entity in the same sense as other stakeholder groups, there are often no identified representatives who can speak for public stakeholders during the consultation process.</p>	<p>3. There are a number of consultation mechanisms suitable for obtaining input from large, heterogeneous, relatively unorganized stakeholder groups. Alternately, once the stakeholder group is defined, it may be possible to identify existing leaders who can effectively represent the group, or to ask a group of public stakeholders to designate a representative.</p>

Problems	Solutions
<p>4. Public confidence in the competence and integrity of government and industry has eroded over the past few decades. This means that regulatory officials attempting to communicate with the public must overcome a generalized distrust of government, usually generated not by their own actions, but by the actions of others in their own agencies or in other national, regional, local government agencies.</p>	<p>4. This is not a problem with any easy, short-term solutions. Implementing policies of more extensive public consultation, as well as greater openness and accountability, within governments should, over the long term, improve public perceptions of government. As public stakeholders become more equal partners in risk management, they will be exposed to some of the constraints, dilemmas, and conflicting demands which regulators must face. This increased experience and knowledge may moderate public perceptions of government. Meanwhile, individual risk regulators can help to spread the "culture of credibility" by maintaining credibility within their own areas of authority or expertise, in their dealings with the public.</p>
<p>5. Public stakeholders may lack technical knowledge and may have a limited understanding of the nature of risk and of the risk analysis process. This may limit the value of their input and may cause them to make unrealistic risk management demands.</p>	<p>5. A "we're the experts, not you" stance toward the public is unproductive. With sufficient creativity and effort, any technical subject can be explained to laypeople. The object should be not to provide as much information as possible about an issue, but to provide sufficient accurate, relevant information to enable the recipient to make an informed decision. Whenever feasible, background information should be provided to public stakeholders before consultations begin. It should also be borne in mind that while public stakeholders may not be technical experts on the risk under discussion, they generally have much more knowledge of their own community or stakeholder group than do regulatory or industry stakeholders. A handbook, video, or other educational materials, prepared for the layperson, which explain the nature of risk and of the risk analysis process, would be very valuable aids in helping public stakeholders to understand the tradeoffs and difficulties associated with the management of risks.</p>

Problems	Solutions
<p>6. Government employees are constrained by the terms of their employment, by their mandates, by professional norms, by the policies of their organizations, by economic and political considerations, while the private citizen, in his or her capacity as risk stakeholder, typically faces few of these constraints. They are thus free to use tactics which are not an option for other stakeholders and which the latter may consider unfair. Public stakeholders may maintain a narrow, not-in-my-backyard stance, while federal regulators must balance the interests of a broad range of stakeholders. As well, government or industry can be held accountable for the outcomes of risk management policies and programs in a way that citizen stakeholders generally cannot.</p>	<p>6. Public stakeholders sometimes resort to unconventional or "unfair" tactics in order to gain power when other avenues of influence have been closed to them. Giving public stakeholders access to power through partnership in the risk management process reduces the likelihood that "outsider" tactics will be used. As they are given more power, public stakeholders must accept the greater responsibility and accountability which comes with it. To encourage accountability, the influence which public consultations have had on risk management decisions should be documented as part of the risk analysis process, and should be included in evaluations of the impact of risk management decisions and programs. Throughout the consultation process, <b>all</b> stakeholder representatives should be required to adhere to rules of order and decorum, agreed on in advance, in order to maintain their right to participate fully in the process.</p>
<p>7. Public stakeholders demand unrealistically simple answers and solutions to complex problems.</p>	<p>7. Often these demands arise because of a need to make practical decisions around an issue of risk - whether to eat or not to eat something, live or not live in a particular location, use or not use a particular product - and the resulting frustration when the information available is too equivocal to assist in making that decision. It is more productive to review the available information from the stakeholders' perspective than to focus on possible errors in their understanding of the information. By identifying the problems which stakeholders are facing (or think they are facing) and the decisions which stakeholders are trying to make, it may be possible to help stakeholders resolve their concerns, without distorting the information by oversimplifying it. In some cases, stakeholders can be helped to identify solution options which they have overlooked by oversimplifying an issue.</p>

**Table 4      Qualitative Factors Affecting Risk Perception and Evaluation**

Factor	Conditions Associated with Increased Public Concern	Conditions Associated with Decreased Public Concern
Catastrophic potential	Fatalities and injuries grouped in time and space	Fatalities and injuries scattered and random
Familiarity	Unfamiliar	Familiar
Understanding	Mechanisms or process not understood	Mechanism or process understood
Controllability (personal)	Uncontrollable	Controllable
Voluntariness of exposure	Involuntary	Voluntary
Effects on children	Children specifically at risk	Children not specifically at risk
Effects manifestation	Delayed effects	Immediate effects
Effects on future generations	Risk to future generations	No risk to future generations
Victim identity	Identifiable victims	Statistical victims
Dread	Effects dreaded	Effects not dreaded
Trust in institutions	Lack of trust in responsible institutions	Trust in responsible institutions
Media attention	Much media attention	Little media attention
Accident history	Major and sometimes minor accidents	No major or minor accidents
Equity	Inequitable distribution of risks and benefits	Equitable distribution of risks and benefits
Benefits	Unclear benefits	Clear benefits
Reversibility	Effects irreversible	Effects reversible
Origin	Caused by human actions or failures	Caused by acts of nature or God

From: [Improving Risk Communication](#), National Research Council  
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- a bilingual guide, prepared for federal agencies as part of the Secretariat's strategy to promote a consultative culture within the federal public service. General guide; includes good sections on when to consult and how to organize for consultations. 12 pages in each language.

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- directive setting out policy guidelines which federal agencies must follow when developing or changing regulations. Includes requirements for stakeholder consultation and communication, and for a complaint resolution process. 11 pages.

## **ANNEX 1 - DEFINITIONS**

The definitions below are adapted from "Risk Assessment Risk Analysis in Codex: Recommendations of a Joint FAO WHO Expert Consultation", ALINORM 95/9. (Discussed as an agenda item at the 21st Codex Alimentarius Commission session, Rome, July 3-8, 1995.)

**Risk** - a function of the probability of an adverse effect and the magnitude of that effect, consequential to a hazard(s) in food

**Risk Analysis** - a process consisting of three components: risk assessment, risk management and risk communication.

**Risk Assessment** - the scientific evaluation of the probability of occurrence and severity of known or potential adverse health effects resulting from human exposure to foodborne hazards. The process consists of the following steps: (i) hazard identification (ii) hazard characterization, (iii) exposure assessment, and (iv) risk characterization. The definition includes quantitative risk assessment, which emphasizes reliance on numerical expressions of risk, and also qualitative expressions of risk, as well as an indication of the attendant uncertainties.

**Risk Characterization** - integration of hazard identification, hazard characterization and exposure assessment into an estimation of the adverse effects likely to occur in a given population, including attendant uncertainties.

**Risk Communication** - the interactive exchange of information and opinions concerning risks among risk assessors, risk managers and other interested parties. {with one objective being the achievement of better understanding of risk and risk related issues and decisions}.

**Risk Management** - the process of weighing policy alternatives in the light of the results of risk assessment and, if required, selecting and implementing appropriate control options